

Collider – Accelerator Department Machine Advisory Committee
Nov 8-9, 2004 Meeting

Charge

The main goal for RHIC operation over the next four years is to reach enhanced luminosity and polarization performance as laid out in recent planning documents (see i.e. <http://www.rhichome.bnl.gov/RHIC/Runs/RhicProjections.pdf>). The main charge to the Committee consists of reviewing the development and commissioning plans. In particular please review, comment on, and offer recommendations as appropriate in the following areas:

- RHIC luminosity development for heavy ion operation: Are the limitations to the RHIC luminosity understood? Are the plans to overcome the present luminosity limitations well developed and properly focused? Are the commissioning plans realistic and developed in sufficient detail?
- RHIC luminosity development for polarized proton operation: Are the limitations to the RHIC luminosity understood? Are the plans to overcome the present luminosity limitations well developed and properly focused? Are the commissioning plans realistic and developed in sufficient detail?
- Polarization development in the AGS: Are the sources of beam depolarization in the AGS understood? Are the plans to reach full polarization (75%) at the nominal bunch intensity (2×10^{11} protons) at AGS extraction well developed and properly focused? Are the commissioning plans realistic and developed in sufficient detail?
- Polarized beam acceleration in RHIC to 250 GeV: Is there sufficient understanding of polarized proton acceleration in RHIC to 250 GeV to plan a successful commissioning effort? Are the plans to reach full polarization (70%) at 250 GeV in RHIC well developed and properly focused?

In additions, any comments or suggestions the committee might wish to make on other topics of the C-AD accelerator complex are very welcome.

It is requested that a concise report responsive to this charge be forwarded to the C-AD Chair Derek Lowenstein by December 15, 2004. Thank you.